

Appl. No. 10/645,001
Amdt. dated June 18, 2004
Reply to Office action of March 18, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1. (canceled).

Claim 2. (canceled).

Claim 3. (canceled)..

Claim 4. (amended) ~~The apparatus of claim 1 wherein:~~

In combination with a mounting arm of a soil leveling attachment:

a rearwardly extending carrier arm having proximal and distal end portions, said distal end portion being provided with a leveling device for engagement with the ground,

a pivot mounting said proximal end portion of said carrier arm to said mounting arm for upward and downward pivotal movement of the carrier arm,

~~said a selectively operable connecting link on said mounting arm has having a pivoting end portion pivotably mounted to said mounting arm and a connecting end portion, said connecting link having a fixed setting and a released, floating setting in which the connecting link is movable,~~

~~a spring member acting between said connecting end portion of connecting link and said carrier arm to bias said carrier arm toward a lower position when said connecting link is at its fixed setting, whereby said spring member applies a downward force on said leveling device,~~

~~said means for releasing said connecting link from said fixed setting including a removable pin for securing said connecting link against pivoting movement relative to said mounting arm, said removable pin also removable for releasing said connecting link from said fixed setting to permit said connecting link to float in response to upward movement of said carrier arm.~~

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Claim 5. (amended) The apparatus of claim [1] 4 wherein:

said spring member is biased toward an extended position and movable between the extended position and a compressed position, and

~~_____ said connecting link has a pivoting end portion pivotably mounted to said mounting arm and a connecting end portion engaging said spring member, said means for releasing said connecting link from said fixed setting including a removable pin for securing said connecting link against pivoting movement relative to said mounting arm.~~

Claim 6. (amended) The apparatus of claim [1] 4 wherein:

said spring member is a spring assembly including a rod having a proximal end and a distal end, a fixed trunnion fitting at the proximal end of said rod and a sliding trunnion fitting at the distal end of said rod, a spring disposed between said fixed and sliding trunnion fittings biasing said sliding trunnion fitting away from said fixed trunnion fitting and a head at the distal end of the rod to retain said sliding trunnion fitting, said sliding trunnion fitting pivotably mounted to said carrier arm by lugs, and,

~~_____ said connecting link has a pivoting end portion pivotably mounted to said mounting arm and a connecting end portion engaging said spring member, said means for releasing said connecting link from said fixed setting including a removable pin for securing said connecting link against pivoting movement relative to said mounting arm.~~

Claim 7. (amended) The apparatus of claim [1] 4 wherein:

said spring member is a spring assembly including a rod having a proximal end and a distal end, a fixed trunnion fitting at the proximal end of said rod and a sliding trunnion fitting at the distal end of said rod, a spring disposed between said fixed and sliding trunnion fittings biasing said sliding trunnion fitting away from said fixed trunnion fitting and a head at the distal end of the rod to retain said sliding trunnion fitting, said sliding trunnion fitting pivotably mounted to said carrier arm by lugs, said fixed trunnion fitting having a pair of bosses, and,

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said connecting link is a pivoting link including includes a pair of links each having a pivoting end portion pivotably mounted to said mounting arm, a connecting end portion for receiving one of said bosses of said fixed trunnion fitting and a removable pin for securing said links against pivoting movement relative to said mounting arm, whereby said means for releasing said connecting link from said fixed setting is the removal of said removable pin.

Claim 8. (original) In combination with a mounting arm of a soil leveling attachment:

a rearwardly extending carrier arm having proximal and distal end portions, said distal end portion being provided with a leveling device for engagement with the ground,

a pivot mounting said proximal end portion of said carrier arm to said mounting arm for upward and downward pivotal movement of the carrier arm as the soil leveling device travels over the ground,

a selectively operable connecting link on said mounting arm having a fixed setting and a released, floating setting in which the connecting link may pivot, said connecting link having a pivoting end portion pivotably mounted to said mounting arm and a connecting end portion,

a spring member biased toward an extended position and movable between the extended position and a compressed position acting between said connecting end portion of said connecting link and said carrier arm to bias said carrier arm toward a lower position when said connecting link is in its fixed setting, whereby said spring member applies a downward force on said leveling device,

means for releasing said connecting link from said fixed setting including a removable pin for securing said connecting link against pivoting movement relative to said mounting arm such that when said removable pin is removed, said connecting link floats in response to upward movement of said carrier arm, whereby said leveling device can travel across the ground free of downward force from said spring member.

Claim 9. (amended) The apparatus of claim 8 wherein:

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said spring member is a spring assembly including a rod having a proximal end and a distal end, a fixed trunnion fitting at the proximal end of said rod and a sliding trunnion fitting at the distal end of said rod for sliding between an extended position and a compressed position, a spring disposed between said fixed and sliding trunnion fittings biasing said sliding trunnion fitting away from said fixed trunnion fitting in said extended position and a head at the distal end of the rod to retain said sliding trunnion fitting in said extended position, said sliding trunnion fitting pivotably mounted to said carrier arm by lugs, said fixed trunnion fitting having a pair of bosses, and,

said connecting link includes a pair of links each having a pivoting end portion pivotably mounted to said mounting arm and a connecting end portion for receiving one of said bosses of said fixed trunnion.

Claim 10. (amended) The apparatus of claim 8 wherein:

said spring member is a spring assembly including a rod having a proximal end and a distal end, a fixed trunnion fitting at the proximal end of said rod and a sliding trunnion fitting at the distal end of said rod for sliding between an extended position and a compressed position, a spring disposed between said fixed and sliding trunnion fittings biasing said sliding trunnion fitting away from said fixed trunnion fitting in said extended position and a head at the distal end of the rod to retain said sliding trunnion fitting in said extended position, said sliding trunnion fitting pivotably mounted to said carrier arm by lugs, said fixed trunnion fitting having a pair of bosses, and,

said connecting link is a pivoting link including a pair of links each having a pivoting end portion pivotably mounted to said mounting arm and a connecting end portion for receiving one of said bosses of said fixed trunnion fitting, said connecting link including a removable pin for securing said pair of links against pivoting movement relative to said mounting arm.

Claim 11. (new) The apparatus of claim 8 further comprising:

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means for limiting movement of said connecting link when said connecting link is in the released, floating setting.

Claim 12. (new) The apparatus of claim 8 wherein:

said connecting link is a pivoting link including a pair of links each having a pivoting end portion pivotably mounted to said mounting arm and a connecting end portion for receiving one of said bosses of said fixed trunnion fitting, said connecting link including a removable pin for securing said pair of links against pivoting movement relative to said mounting arm and wherein,

said mounting arm further including a pair of corresponding holes for receiving said removable pin such that when received by said corresponding holes, said pin is positioned to interfere with said pivoting link to limit the range of motion of said pivoting link.

Claim 13. (new) A method of mounting a soil leveling device to the mounting arm of a soil leveling attachment such that said soil leveling device may either be relatively strongly biased against upward movement or relatively unrestrained from upward movement, the method comprising:

(a) pivotably attaching a carrier arm to said mounting arm, said carrier arm for carrying said soil leveling attachment,

(b) obtaining a connecting link having a pivot end portion and a connecting end portion and attaching the pivot end portion of said connecting link to said mounting arm,

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(c) providing a means for selectively either locking the position of said connecting link relative to said mounting arm or releasing said connecting link for pivoting movement relative to said mounting arm,

(d) obtaining a spring member and connecting said spring member between said connecting end portion of said connecting link and said carrier arm, said spring member for resisting relative movement of said carrier arm toward said connecting end portion of said connecting link, such that at least initial upward movement of said carrier arm and said soil leveling device is resisted by said spring member when the position of said connecting link is locked and such that at least initial upward movement of said carrier arm and said soil leveling device is not resisted by said spring member when the position of said connecting link is not locked.

Claim 14 (new) The method of claim 13, further comprising the step of:

(e) limiting the pivoting movement of said connecting link when said connecting link is not locked such that said spring member resists movement of said soil leveling device after an initial amount of movement of said soil leveling device.